Fig. 1

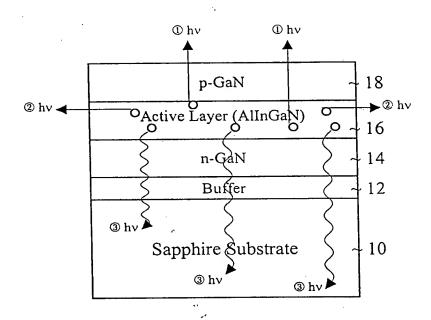


Fig. 2A

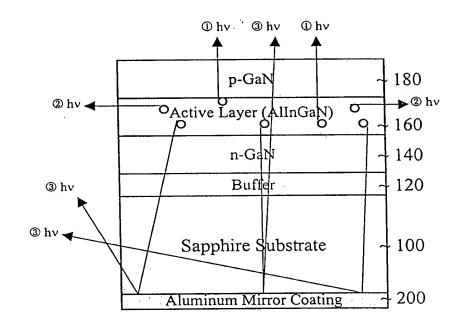


Fig. 2B

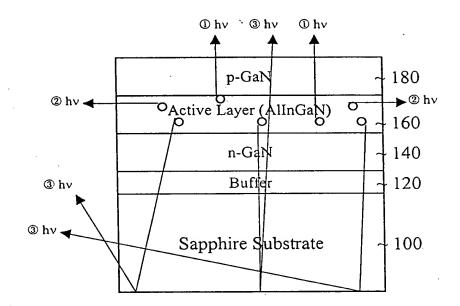


Fig. 3A

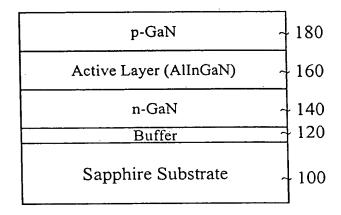


Fig. 3B

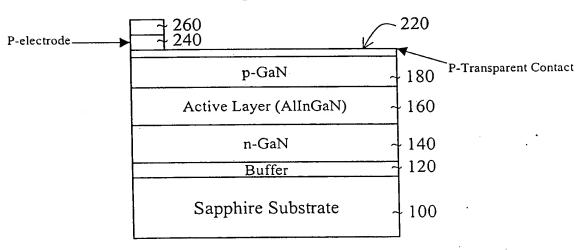


Fig. 3C

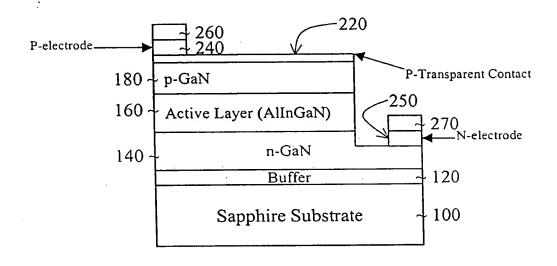


Fig. 3D

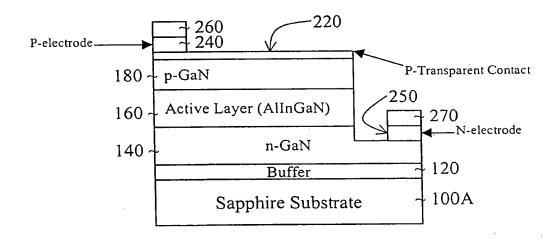


Fig. 3E

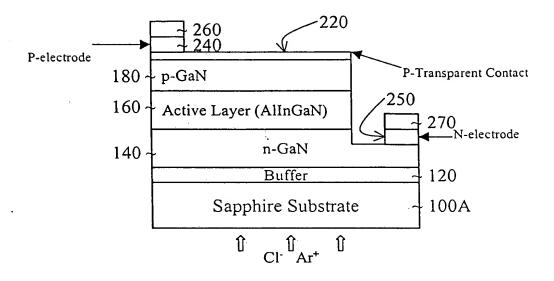


Fig. 3F

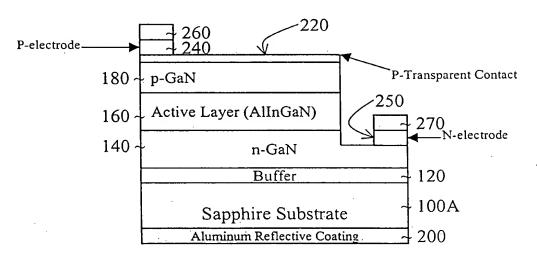


Fig. 4A

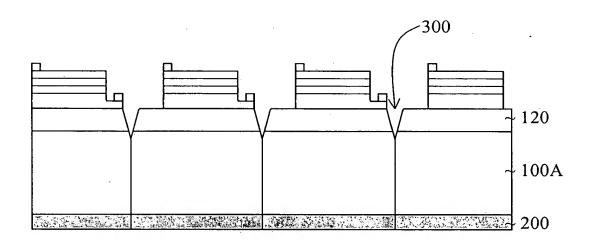


Fig. 4B

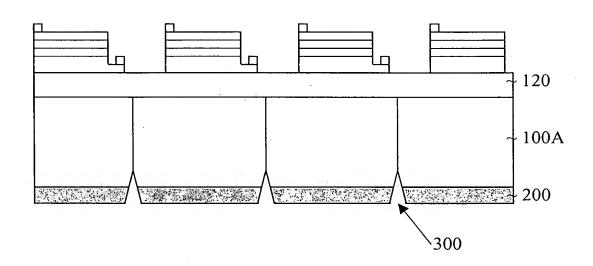
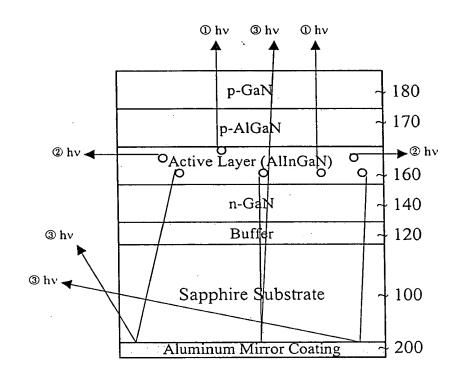


Fig. 5



8 8 2 8 Input Current (mA) 20

40

30

20

9

0.0

. 10.0

Light Output vs. Current Injection

-e-Without backside metal -B-With backside metal

90.0

80.0

70.0

60.0

50.0

lv (mcd)

40.0

30.0

20.0

FIG. 6